

Appl. No. : 10/771,845
Filed : February 4, 2004

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A method of closing a patent foramen ovale having a channel formed between overlapping surfaces of a septum primum and a septum secundum, the septum primum having a proximal surface and a distal surface adjacent the left atrium, the septum secundum having a proximal surface adjacent the right atrium and a distal surface, the channel disposed between the overlapping proximal surface of the septum primum and the distal surface of the septum secundum, the method comprising:

providing a closure device having a proximal end, a distal end, a proximal segment, an intermediate segment and a distal segment, the proximal and intermediate segments defining a first clip-shaped portion and the intermediate and distal segments defining a second clip-shaped portion, wherein the closure device is self-expandable to a deployment shape wherein the proximal, intermediate and distal segments are generally parallel to one another;

deploying the closure device within the patent foramen ovale such that the second clip-shaped portion is positioned over a tip of the septum primum and the first clip-shaped portion is positioned over a tip of the septum secundum, with the intermediate segment lying in the channel between the overlapping septum primum and the septum secundum; and

locking the position of the proximal segment, the intermediate segment and the distal segment of the closure device after deployment with a locking element that is separate from the proximal segment, intermediate segment and the distal segment;

wherein the closure device when deployed exerts a force to draw the septum primum and septum secundum together.

2. (Previously Presented) The method of Claim 1, wherein the intermediate and distal segments of the closure device when deployed are positioned along the proximal and distal surfaces, respectively, of the septum primum and the proximal and intermediate segments of the closure device when deployed are positioned along the proximal and distal surfaces, respectively, of the septum secundum.

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3. (Original) The method of Claim 1, wherein the first clip-shaped portion and second clip-shaped portions are integrally formed.

4. (Original) The method of Claim 1, wherein the first clip-shaped portion and second clip-shaped portions are made of wire.

5. (Original) The method of Claim 1, wherein the first clip-shaped portion and second clip-shaped portions when the device is deployed forms generally an S-shape.

6. (Original) The method of Claim 1, wherein each clip-shaped portion is formed from two adjacent loops connected by a connecting portion.

7. (Original) The method of Claim 1, wherein deploying the closure device comprises releasing the closure device from a detachment element provided on the device.

8. (Cancelled)

9. (Cancelled)

10. (**Currently Amended**) A method of closing a patent foramen ovale having a channel formed between overlapping surfaces of a septum primum and a septum secundum, the septum primum having a proximal surface and a distal surface adjacent the left atrium, the septum secundum having a proximal surface adjacent the right atrium and a distal surface, the channel disposed between the overlapping proximal surface of the septum primum and the distal surface of the septum secundum, the method comprising:

providing a closure device having a proximal end and a distal end and having a generally elongate configuration and a clip configuration, wherein when the closure device is in its elongate configuration the proximal and distal ends are pulled away from each other and when the closure device is in its clip configuration the closure device has generally an S-shape, the closure device being releasably attached relative to a delivery device;

delivering the closure device to the patent foramen ovale with the delivery device, the closure device being held relative to the delivery device in its elongate configuration;

deploying the closure device in the channel of the patent foramen ovale, wherein the closure device when deployed includes a first clip-shaped portion positioned around the septum secundum and a second clip-shaped portion positioned around the septum primum; and

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locking the closure device in its clip configuration after deployment with a locking element to increase the clamping force of the closure device on the septa of the patent foramen ovale, wherein the closure device when deployed exerts a force to draw the overlapping septum primum and septum secundum together.

11. (Previously Presented) The method of Claim 10, wherein the closure device includes a detachment element at its proximal end, and the closure device is delivered using a core wire that releasably engages the detachment element.

12. (Previously Presented) The method of Claim 10, wherein the closure device is held in its elongate configuration distal to a deployment catheter.

13. (Previously Presented) The method of Claim 10, wherein the closure device is delivered by positioning a catheter between the septum primum and septum secundum.

14. (Cancelled)

15. (Previously Presented) The method of Claim 10, wherein the closure device self-expands to its deployment configuration.

16. (Previously Presented) The method of Claim 10, wherein the closure device includes a plurality of eyelets, and the closure device is releasably attached to the delivery device by engaging a core through at least some of the eyelets.

17-47. (Canceled)

48. (Previously Presented) The method of Claim 1, wherein the intermediate segment comprises at least two side-by-side wire portions.

49. (Previously Presented) The method of Claim 1, wherein the locking element is provided as a retained part of the closure device after deployment.

50. (Previously Presented) The method of Claim 1, wherein the locking element connects to the proximal and distal ends of the device, and locking the position of the closure device after deployment comprises longitudinally shortening and radially expanding the device.

51. (Previously Presented) The method of Claim 50, wherein the locking element comprises a locking string connected to eyelets provided on the closure device.

52. (Previously Presented) The method of Claim 10, wherein the locking element is provided as a retained part of the closure device after deployment.

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53. (Previously Presented) The method of Claim 10, wherein the locking element connects to the proximal and distal ends of the device, and locking the closure device in its clip configuration after deployment comprises longitudinally shortening and radially expanding the device.

54. (Previously Presented) The method of Claim 53, wherein the locking element comprises a locking string connected to eyelets provided on the closure device.

55. (Previously Presented) The method of Claim 10, wherein the locking element remains within the patent foramen ovale after deployment.

56. (Previously Presented) The method of Claim 1, wherein the locking element remains within the patent foramen ovale after deployment.